

Product Chemistry, Toxicity, Nontarget Organisms & Environmental Fate



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND PESTICIDE PRODUCTS

MEMORANDUM

DATE: September 8, 2010

SUBJECT: Science Review in Support of the Registration of Confine Extra, Containing 53% Mono- And Di- Potassium Salts Of Phosphorus Acid As Its Active Ingredient.

Decision Number:	419442
DP Number:	381716
EPA File Symbol Number:	1381-EEU
Chemical Class:	Biochemical
PC Code:	076416
CAS Number:	13492-26-7
Tolerance Exemptions:	40 CFR §180.1210
MRID Numbers:	481934-01 to -04

FROM: Jacob Moore, Chemist /s/ 09/08/10 *Paul J. Moore*
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TO: John Fournier, Regulatory Action Leader
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~~THE FOLLOWING CONTAINS CONFIDENTIAL BUSINESS INFORMATION~~

ACTION REQUESTED

In response to the request for additional information discussed in a memorandum from M. Xue to J. Fournier dated 05/13/10 and relayed in a letter from BPPD to the registrant dated 08/11/10, the registrant has submitted revised CSF dated 08/11/10, product chemistry information in MRIDs 481934-01 to -02, toxicity information in MRID 481934-03, and non-target information in MRID 481934-04.

Mono- and di- potassium salts of phosphorous acid
PC Code: 076416

DP Number: 381716
EPA Reg. No.: 1381-EEU

RECOMMENDATIONS AND CONCLUSIONS

1. CSF dated 08/11/10 is **ACCEPTABLE**.
2. Product Chemistry information (MRID 481934-01 & -02) is **ACCEPTABLE**. No additional data are required.
3. Toxicity information (MRID 481934-03) is **ACCEPTABLE**. No additional data are required.
4. Tier I Non-Target information (MRID 481934-04) is **ACCEPTABLE**. No additional data are required.

STUDY SUMMARIES

NOTE: DERs were not created for these MRIDs.

Product Chemistry (MRID 481934-01 & -02)

Phosphorous acid is unstable at high temperatures and not expected to come in contact with metals. This negates the need for an OCSPP Guideline 830.6313 (Stability to normal and elevated temperatures, metals and metal ions) Study. A Partition Coefficient (OCSPP 830.7550-7570) Study is not required since the material in question is soluble in water. Literature data was cited for Flammability (OCSPP 830.6315), Water Solubility (OCSPP 830.7840-7860), and Vapor Pressure (OCSPP 830.7950). This data is summarized in a table below.

Study Guideline	Result	Citation
Flammability	Non-flammable	IUCLID Dataset for Phosphonic Acid
Water Solubility	4250 g/L @ 20°C	IUCLID Dataset for Phosphonic Acid
Vapor Pressure	<145 hP @ 20°C	IUCLID Dataset for Phosphonic Acid

Table 1. Data Summary (MRID 48193401).

A UV/Vis (OCSPP Guideline 830.7050) was also completed and is acceptable. The absorption spectrum of the test substance was measured by spectrophotometry according to the guideline. The data from the study is summarized in the table below.

Solution	Neutral	Acidic	Alkaline
Concentration (g/100 mL)	4.4512	4.4512	3.9566
pH Observed	6.27	1.52	10.23

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Wavelength of Maximum (nm)	202.0	210.0	206.0	214.0
Absorbance (at maximum)	0.758	0.016	2.496	0.200
$\epsilon^{1\%}_{1\text{cm}}$ Value calculated	0.1703	0.0036	0.6308	0.0505
Bandwidth (nm)	4.0	16.4	2.2	1.5

Table 2. Summary of UV/Vis data (MRID 48193402).

No additional product chemistry data are required.

Toxicity (MRID 481934-03)

In lieu of data studies, rationale was submitted for several studies. Due to expected low exposure and low acute toxicity (Category IV) of the end-use product, the 90-day oral (OCSPP 870.3100) study is not required. The same rationale can be applied to the 90-day dermal (OCSPP 870.3250), 90-day inhalation (OCSPP 870.3465), pre-natal developmental (OCSPP 870.7300), and mutagenicity (OCSPP 870.5100, 870.5300, and 870.5375) requirements. The information provided is acceptable and no additional data are required.

Non-Targets (MRID 481934-04)

In the deficiency letter, non-target plant testing (OCSPP 850.4100, 4150) studies were requested. The registrant has submitted a rationale in lieu of data. The rationale reasons that there is low potential exposure to plants, soils, or other non-target organisms. No additional data are required for non-target organisms and environmental fate requirements.

cc: J. Moore, J. Fournier, BPPD Science Review File, IHAD/ARS
J. Moore, FT, PY-S: 09/08/10